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IN

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 09/105,117 | 06/17/98 | VRLIJC | M FJ-122 |

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HM22/0613

EXAMINER

STOLE, E

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1652 | 21 |

DATE MAILED: 06/13/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/105,117

Applicant

Vrljic et al.

Examiner
Einar Stole

Group Art Unit
1652



- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 1 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 1-48 is/are pending in the application.
- Of the above, claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☐ Claim(s) _____ is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☒ Claims 1-48 are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☐ Notice of References Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. Claims 1-48 are presented for examination.

Election/Restriction

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-20, drawn to methods for producing amino acids in microorganisms, classified in class 435, subclass 115.
 - II. Claims 21-26, 29, 31, 32, 35-38, and 43-48, drawn to nucleic acids encoding an amino acid carrier protein, vectors and transformed host cells thereof, classified in class 536, subclass 23.7.
 - III. Claims 27, 28, 30, 33, 39 and 40, drawn to nucleic acids encoding an amino acid export regulator protein, classified in class 536, subclass 23.7.
 - IV. Claim 41 and 42, drawn to a transmembrane exporter protein, classified in class 435, subclass 196.
3. The inventions are distinct, each from the other because of the following reasons: Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the methods for producing amino acids of Invention I can be practice with another materially different product. For example, the methods of Invention I are not limited to the nucleic acids encoding the

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amino acid carrier proteins of Invention II, but may be practiced by using the regulator proteins of Invention III.

Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the methods for producing amino acids of Invention I can be practiced with another materially different product. For example, the methods of Invention I are not limited to the regulator proteins of Invention III, but may be practiced by using the nucleic acids of Invention III or the proteins of Invention IV.

Inventions I and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the methods for producing amino acids of Invention I can be practiced with another materially different product. For example, the methods of Invention I are not limited to the proteins of Invention IV, but may be practiced by using the nucleic acids of Inventions II and III.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the nucleic

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acids of invention II have different functions and effects than the nucleic acids of Invention III. Specifically, the nucleic acids of Invention II encode an amino acid carrier protein that interacts directly with specific amino acids and the amino acid exporter protein, whereas the nucleic acids of Invention III encode amino acid export regulatory proteins that act to modulate the expression of the amino acid export protein. Thus, the nucleic acids of Invention II and Invention III encode proteins that have different functions.

Inventions II and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the nucleic acids of invention II have different functions and effects than proteins of Invention IV. Specifically, the nucleic acids of Invention II encode an amino acid carrier protein that interacts directly with specific amino acids and the amino acid exporter of Invention IV. Also, the amino acid exporter protein of Invention IV is a membrane bound protein essential to the export of amino acids from the cell. Thus, the nucleic acids of Invention II and the proteins of Invention IV have different functions.

Inventions III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the nucleic acids of invention III have different functions and effects than proteins of Invention IV. Specifically, the nucleic acids of Invention III encode an amino acid export regulatory protein that functions to

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regulate the expression of the exporter protein of Invention IV. Thus, the nucleic acids of Invention III encode the proteins that have different functions and effects than the proteins of Invention IV.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

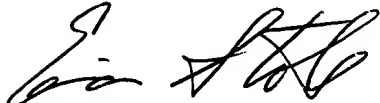
7. The Group and Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1652.

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Einar Stole, Ph.D., whose telephone number is (703) -305-4507. The Examiner can normally be reached Tuesday through Friday 6:30 a.m. to 5:00 p.m.

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If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Ponnathatpura Achutamurthy, can be reached on (703)-308-3804. The FAX phone number for Technology Center 1600 is (703)-305-7401.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1600 receptionist whose telephone number is (703)-308-0196.


June 8, 2000

EINAR STOLE, PH.D
PATENT EXAMINER